



Material Test Report

Heat Code: YGW

An Ameri-Forge Group Company
13770 Industrial Rd., Houston, TX 77015

ISO 9001:2000 Certified

Sales: (713) 868-4421 Fax: (713) 455-8366

VACOISA. S.A. DE CV. AV. CANAL DE TEZONTLE NO. 36 COL. LEYES DE REFORMA RFC.VAC-970415-M22	PO: VAC0306507	Sales Order: 59163	Line: 34
	Item Code: 0601800102-0021	Qty Shipped: 71	
	Item Desc: FLG 08.00 0600 WN RF XH A105 NRM COFFR		
	Supplier: CMC	Supplier Heat: 256241	
Spec: ASTM A 105/A 105M-03/ASME SA 105/SA 105M-04 Normalized			

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.20				Ni	Nickel	0.10		✓	7440-02-0
Mn	Manganese	0.89		✓	7439-96-5	Cr	Chromium	0.12		✓	7440-47-3
P	Phosphorous	0.011				Mo	Molybdenum	0.027			
S	Sulphur	0.020				V	Vanadium	0.002			
Si	Silicon	0.19				Cb	Columbium	0.001			
Cu	Copper	0.23		✓	7440-50-8	C.E.		0.40			

Mechanical				Heat Treat			
Test Lab	AFG			Norm. Temp. (F)	1675		
Test Bar Size	SACRIFICIAL PIECE			Norm. (Hrs)	4.0		
HBW	156-156			Norm. Cooling Type	AIR		
Elg (%)	33.0			Norm. Location	AFG		
RA (%)	63.0						
Tensile Specimen Size (in)	0.500						
Tensile (ksi)	76.6			Country of Origin	USA (US)		
Yield (ksi)	46.2			EP	Y		
Gauge Length	2.00						

Product compliant with NACE MRO175, latest Ed.
 I.A.W VACOISA S.A. DE C.V.
 No Weld repair performed. Chemical Analysis results shown are actual. Forgings are capable of passing hydrostatic test compatible with the appropriate rating. Elongation taken from a round specimen. All material supplied under this order is certified to be free of mercury contamination and no mercury bearing equipment was used in manufacturing, fabrication or testing. Yield strength was determined using the 0.2% offset method.

EPCRA Supplier Notification: This product may contain one or more toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986) and 40 C.F.R. Part 372. Potentially reportable chemicals are indicated with a checkmark in the "EPCRA" column and a Chemical Abstract Services (CAS) registry number is provided for each such chemical in addition to the percent by weight of the chemical present in this product. It is your responsibility alone to determine whether your facility is required to submit a Toxic Release Inventory Report under EPCRA Section 313.

Certification No.: 120829
 Certification Date: 7/3/2007

Kevin Papich - Tech. Svcs. Manager

This report is issued in compliance with the requirements of EN10204 3.1 / ISO 10474 3.1.b

Remission - 6567
 O.C. 6242
 PART. 01